



AgSource Laboratories

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Soil Test Methods

It is important to note that there is no perfect method for determining how much or little of an essential nutrient is available for plant uptake. Availability is determined by soil moisture, temperature, pH, clay content, internal drainage, organic content, physical barriers and many other factors. As any of these factors change, the availability will also change. From a client perspective, it is important to know the methodologies your laboratory is using. The soil test methods used by AgSource Laboratories in Bonduel, Wis., are listed below.

| <u>Analysis</u> | <u>Units</u> | <u>Description</u> |
|---|--------------|-------------------------------|
| Soil pH | | 1:2 Soil/Water Slurry |
| Buffer pH (Buffer Index) | | Sikora Method |
| Soluble Salt | us/m | 1:4 Soil/Water Slurry |
| Cations (Ca, Mg, Na) | ppm | Ammonium Acetate Extraction |
| Phosphorus | ppm | Bray 1, read colorimetrically |
| By request, if pH \geq 7.3 | ppm | Olsen Extraction |
| Potassium | ppm | Bray 1 |
| Traces (Zn, Mn, Cu, Fe) | ppm | DTPA Extraction |
| Sulfur | ppm | Turbidimetric Procedure |
| Boron | ppm | Hot Water Extraction |
| Nitrate | ppm | Electrode Method |
| Organic Matter (OM) | % | Loss on Ignition (LOI) |
| Calcium, Potassium, Phosphorous, and Magnesium | ppm | Mehlich 3 Extraction |